

Amendment of the Sequence Listing

Please delete the Sequence Listing of record and replace with the substitute Sequence Listing enclosed herewith.

Amendment of the Specification.

Please replace the paragraph beginning at page 1, line 3, with the following rewritten paragraph:

-- This application is a continuation of Application No. 08/523,894, filed September 6, 1995, and issued as U.S. Pat. No. 6,136,310, which is a continuation-in-part of Application No. 08/476,237, filed June 7, 1995, and issued as U.S. Pat. No. 5,756,096, ~~which is a continuation-in-part of Application No. 08/379,072, filed January 25, 1995, and issued as U.S. Pat. No. 5,658,570, which is a continuation of Application No. 07/912,292, filed July 10, 1992 (abandoned), which is a continuation in part of Application No. 07/856,281, filed March 23, 1992 (abandoned), and a continuation in part of Application No. 07/735,064, filed July 25, 1991 (abandoned).~~

Please amend the paragraph beginning at page 6, line 14, as shown below:

-- As an improvement to known chimeric antibodies which are often antigenic in humans, related applications U.S. Serial Application No. 08/476,237, filed June 7, 1995 (issued as U.S. Patent No. 5,756,096 on May 26, 1998), Serial Application No. 08/347,072 08/379,072, filed January 25, 1995 (issued as U.S. Patent No. 5,658,570 on August 19, 1997), and Application No. 07/912,212 07/912,292, filed July 10, 1992 (abandoned), Application No. 07/856,281, filed March 23, 1992 (abandoned), and Application No. 07/735,064, filed July 25, 1991 (abandoned), all incorporated by reference herein, describe the manufacture of Old World monkey monoclonal antibodies and chimeric antibodies derived therefrom produced by recombinant methods which contain the variable domain of an Old World monkey antibody (e.g., baboon or macaque), fused to a cloned human, chimpanzee or other monkey constant region or other monkey framework regions. These applications in particular describe the manufacture of such Old World monkey and chimeric antibodies derived therefrom against human antigens as well as the use of such chimeric recombinant antibodies as immunotherapeutic agents for the treatment of human disease. --

Please amend the paragraph beginning at page 11, line 2, as shown below:

- - Figure 1 (SEQ ID NO: 1) depicts the amino acid and DNA sequences of the light heavy chain variable domain of CE9.1. - -

Please amend the paragraph beginning at page 11, line 4, as shown below:

- - Figure 2 (SEQ ID NO: 3) depicts the amino acid and DNA sequences of the heavy light chain variable domain of CE9.1. - -

Please amend the paragraph beginning at page 11, line 6, as shown below:

- - Figure 3 (SEQ ID NO: 5) depicts the amino acid and DNA sequences of the human lambda variable and constant domains contained in CE9.1. - -

Please amend the paragraph beginning at page 11, line 9, as shown below:

- - Figure 4 (SEQ ID NO: 7) depicts the DNA and amino acid sequences encoding of the heavy chain variable and constant gamma 4 sequence. - -

Please amend the paragraph beginning at page 11, line 12, as shown below:

- - Figure 5 (SEQ ID NO: 9) depicts the DNA and amino acid sequences encoding of human heavy chain gamma 4 containing the E mutation. - -

Please amend the paragraph beginning at page 11, line 15, as shown below:

- - Figure 6 (SEQ ID NO: 11) depicts the DNA and amino acid sequences encoding of human heavy chain gamma 4 containing the P and E mutation. - -

Please amend the paragraph beginning at page 11, line 18, as shown below:

- - Figures 7-1, 7-2 and 8 (SEQ ID NOS: 13-55) show the nucleic acid sequences of various leader sequences PCR primers useful in the invention. - -

Please amend the paragraph beginning at page 13, line 1, as shown below:

-- Figure 16 (SEQ ID NOS: 56-59) depicts suitable PCR primers for obtaining the human $\gamma 4$ constant region. --

Please amend the paragraph beginning at page 13, line 3, as shown below:

-- Figure 17 (SEQ ID NO: 11) depicts the CE9 γ 4PE heavy chain sequence. --

Please amend the paragraph beginning at page 14, line 27, as shown below:

-- As discussed *supra*, in the preferred embodiment the subject chimeric antibodies will comprise the anti-CD4 Old World monkey variable heavy and variable light sequences shown in Figure 1 and Figure 2, fused to human constant domain sequences. Suitable means for obtaining these specific variable heavy and variable light domain sequences are described in detail in U.S. application Serial Nos. Application No. 08/476,237, filed June 7, 1990 1995 (issued as U.S. Patent No. 5,756,096 on May 26, 1998), and Serial Application No. 08/397,072 08/379,072, filed January 25, 1995 (issued as U.S. Patent No. 5,658,570 on August 19, 1997), as well as Serial Application No. 07/912,292, filed July 10, 1992 (abandoned), all of which are incorporated by reference in their entirety herein. These applications further disclose the entire nucleic acid and amino acid sequence of these sequences. --

Please amend the paragraph beginning at page 32, line 3, as shown below:

-- Total RNA was isolated from 1×10^7 monkey immortalized B-cells using the guanidinium isothiocyanate method. One tenth of the total RNA was used to make single stranded cDNA using an oligo-dT oligonucleotide primer and reverse transcriptase. One tenth of the amount of single stranded cDNA was used to set up PCR reactions. The six PCR reactions each included one of six 5' V_H family specific oligonucleotide primers containing a Sal I restriction site together with an IgG 3' constant region oligonucleotide containing an Nhe I site, both shown in FIG. 7-1. Similarly, five PCR reactions, utilizing one of five 5' lambda leader sequence oligonucleotide primers containing a Bql II site and a 3' lambda constant region prime containing an Avr II site, were run. Reaction conditions were as described above. Each PCR reaction was run in triplicate. The products of each of the heavy chain and light chain amplification reactions were run on 1.2% agarose gels. The VH4 heavy chain primer (5'-

ACTAAGTCGACATGAAACACCTGTGGTTCTT 3') (SEQ ID NO: 16) and lambda primer (5' ATCACAGATCTCTCACCATGACCTGCTCCCCTCCTCC 3') (SEQ_ID_NO: 36) gave strong bands on agarose gel electrophoresis. The products of these reactions were used for cloning into the vector TCAE 6, which contains human IgG1 and human lambda constant region sequences. --

Please replace the paragraph beginning at page 74, line12, with the re-written paragraph shown below:

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Deposit

Escherichia coli strain XL1 Blue, Anti-CD4 in TCAE6, containing DNA encoding anti-CD4 antibody CE9.1 in expression vector TCAE6 was deposited on July 9, 1992, with the American Type Culture Collection (ATCC), currently located at 10801 University Boulevard, Manassas, VA, 20110-2209, under the provisions of the Budapest Treaty for the International Recognition of the Deposit of Microorganisms for the Purpose of Patent Procedure ("Budapest Treaty"). The ATCC has assigned the deposited cells ATCC accession number 69030. --